UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,391	02/04/2004	Bjorn J. Gruenwald	072257-0311934	2749

909   7590   11/25/2008
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ART UNIT	PAPER NUMBER
2626	

MAIL DATE	DELIVERY MODE
11/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 October 2008_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-12_ is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-12_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _10/14/2008_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Examiner Change

1.   It should be note the examiner change due to the previous examiner no longer available.

Request for Continued Examination

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/14/2008 has been entered.

Information Disclosure Statement

3.   The information disclosure statement (IDS) submitted on 10/14/2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Arguments

4.   Applicant's arguments have been fully considered but they are not persuasive for the following reasons.

Regarding claim 1, the applicant argues (**Remarks, page 7**) the combined

teachings of Tolin and Unger could not accomplish at least the feature "converting the

numeric representation of the corresponding content expressed in the second language

into the corresponding content expressed in the second language" as recited in claim 1,

because no supplemental dictionary would or could exist to convert the numbers or

tokens back into words in the second language. Such a supplemental dictionary would

require knowledge of the representation of the content expressed in the second

language prior to the conversion itself, which is logically impossible. In the absence of a

supplemental dictionary, the predetermined dictionary would have to include all the

words of the second language which is clearly contrary to the teachings of Unger.

In response, the examiner notes that Unger discloses that both predetermined

dictionaries and supplemental dictionaries are transmitted to the receive end (**Unger,

col. 15, lines 30-60, also fig. 13, #52**). When translating a word from a first language

(e.g., English) into a second language (e.g., German) through an international language

as an intermediate pathway (**Tolin , Abstract**), a word of the same concept in the first

language, the second language and intermediate language could assign the same

numerical value to represent that word (**Unger, col. 2, lines 50-55, also col. 9, col.,

lines 5-10, a number is assigned to a word**). For example, both "House" (an English

word) and "Haus" (corresponding German word) could assign the same numerical value

"103" (**Unger, col. 1, lines 50-55**). On the translation side, by searching the

predetermined dictionaries and supplemental dictionaries sent from the first language

and multiple language dictionary databases, the numerical value "103" is found to

represent "House" in English (**using predetermined dictionaries and supplemental**

dictionaries transmitted), it is also found the same concept word of "House" in English

is "Haus" in German (**Tolin, col. 4, lines 5-10, also fig. 2A , using multiple language**

dictionary databases). Since words with the same concept are assigned with the same

numerical value, the numerical value "103" could be converted to German word "Haus".

Therefore, the combined teachings of Tolin and Unger could accomplish the above

underlined feature recited in claim 1.

The applicant also argue independent claims 9 and 10 which recite a feature

similar to that discussed above with regard to claim 1. For the similar rationale, claims 9

and 10 are unpatentable over Tolin in view of Unger.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

6.   Claim(s) 1-12 is/are rejected under 35 USC 101 as not falling within one of the

four statutory categories of invention. While the claim(s) recite a series of steps or acts

to be performed, a statutory "process" under 35 USC 101 must (1) be tied to another

statutory category (such as a manufacture or a machine), or (2) transform underlying

subject matter (such as an article or material) to a different state or thing. The instant

claim(s) neither transform underlying subject matter nor positively recite structure

associated with another statutory category, and therefore do not define a statutory

process.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Tolin et al. (US 5,490,061) in view of Unger et al. (US 5,991,713).

        With respect to independent **claim 1**, Tolin teaches a method for

translating content in a first language into corresponding

content expressed in a second language comprising:

- transforming the content included in the language stream

    expressed in the first language into intermediate content in

    a content space *(Figs. 1, 3, and 4; columns 5-6, file is translated from original*

    language to artificial language); and

- transforming said intermediate content in the content space

    into the corresponding content expressed in the second

> language *(Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to*
>
> *the target language)*

but although Tolin teaches that the artificial language of the intermediate step may be numeric

(col. 3, lines 5-11) and that numbers may be attached to "words" for informational purposes *(col.*

9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57), Tolin does not teach the

steps of:

- converting the content included in the language stream
  expressed in the first language into a numeric
  representation of the content expressed in the first
  language; and

- converting the numeric representation of the corresponding
  content expressed in the second language into the
  corresponding content expressed in the second language.

However, the examiner contends that this concept was well known in the art, as taught by Unger.

In a related field of endeavor, Unger teaches the conversion of textual information to a

numerical form *(col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27)* as well as

converting the numerical form to textual information suitable for display or printing *(col. 15,*

lines 60-66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the language translation method of Tolin with the text conversion

steps of Unger before and after the translation, to have one standardized method of encoding of

input words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

With respect to **claim 2**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 1); in addition, Unger teaches `the method of claim 1, wherein`

`the converting the content included in the language stream`

`expressed in the first language comprises converting one or more`

`terms in the language stream into a numeric value` *(Fig. 2, col. 11, lines*

10-13, each word within the text from the original material is replaced with the number

corresponding to that word (210)) .

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the language translation method of Tolin with the text conversion steps of

Unger before and after the translation, to have one standardized method of encoding of input

words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

With respect to **claim 3**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 2); in addition, Unger teaches `the method of claim 2, further`

`comprising forming a numeric vector from a plurality of said`

`numeric values, each of said plurality of numeric values`

`corresponding to one or more converted terms in the language`

`stream` *(col. 11, lines 10-13 and 19-24, words and numeric strings are converted to numbers; the tokenized data stream, which contains the compressed text information, is stored.)* .

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of storage and transmission.

With respect to **claim 4**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 1); in addition, Unger teaches `the method of claim 1, wherein the converting the content included in the language stream expressed in the first language into a numeric representation of the content expressed in the first language comprises forming a list vector from the language stream expressed in the first language` *(col. 11, lines 10-13 and 19-24, words and numeric strings are converted to numbers; the tokenized data stream, which contains the compressed text information, is stored.)* .

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

With respect to **claim 5**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 1); in addition, Unger teaches `the method of claim 1, wherein`

`the converting the content included in the language stream`

`expressed in the first language into a numeric representation of`

`the content expressed in the first language comprises forming a`

`numeric list vector from the language stream expressed in the`

`first language` *(col. 11, lines 10-13 and 19-24, words and numeric strings are converted*

to numbers; the tokenized data stream, which contains the compressed text information, is

stored.) .

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the language translation method of Tolin with the text conversion steps of

Unger before and after the translation, to have one standardized method of encoding of input

words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

With respect to **claim 6**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 3); furthermore, Tolin teaches `the method of claim 3, further`

`comprising building at least one MMX file associated with said`

`numeric vector` *(Fig 2A, column 3, lines 12-34, column 6, lines 6-12, column 8, line 60-*

column 9, line 5, column 19, line 60- column 20, line 13; sentences and terms in the intermediate

language are assigned indicators or tags which provide a complete grammatical and lexical

analysis of a word in the context of the sentence). While the information about the words and

the relationships between the words are not explicitly in the form of an "MMX file", it is clear

that the stored information is functionally equivalent.

With respect to **claim 7**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 4); furthermore, Tolin teaches the method of claim 4, further

comprising building at least one MMX file associated with said

list vector *(Fig 2A, column 3, lines 12-34, column 6, lines 6-12, column 8, line 60-column*

9, line 5, column 19, line 60- column 20, line 13; sentences and terms in the intermediate

language are assigned indicators or tags which provide a complete grammatical and lexical

analysis of a word in the context of the sentence). While the information about the words and

the relationships between the words are not explicitly in the form of an "MMX file", it is clear

that the stored information is functionally equivalent.

With respect to **claim 8**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 5); furthermore, Tolin teaches the method of claim 5, further comprising

building at least one MMX file associated with said numeric list vector *(Fig 2A, column 3, lines*

12-34, column 6, lines 6-12, column 8, line 60-column 9, line 5, column 19, line 60- column 20,

line 13; sentences and terms in the intermediate language are assigned indicators or tags which

provide a complete grammatical and lexical analysis of a word in the context of the sentence).

While the information about the words and the relationships between the words are not explicitly

in the form of an "MMX file", it is clear that the stored information is functionally equivalent.

With respect to independent **claim 9**, Tolin teaches a method for translating
an object in a first language space to the object in a second
language comprising:

- transforming the numeric representation of the object in the
first language to the object in a language agnostic space
(Figs. 1, 3, and 4; columns 5-6, file is translated from original language to artificial
language); and

- transforming the object in the language agnostic space to a
numeric representation of the object in the second language
space *(Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to the*
target language)

but although Tolin teaches that the artificial language of the intermediate step may be numeric

(col. 3, lines 5-11) and that numbers may be attached to "words" for informational purposes *(col.*

9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57), Tolin does not teach the

steps of:

- converting the object in the first language space into a
numeric representation of the object expressed in the first
language; and

- converting the numeric representation of the object in the
   second language space into the object in the second
   language.

However, the examiner contends that this concept was well known in the art, as taught by Unger.

In a related field of endeavor, Unger teaches the conversion of textual information to a

numerical form *(col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27)* as well as

converting the numerical form to textual information suitable for display or printing *(col. 15,*

lines 60-66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the language translation method of Tolin with the text conversion

steps of Unger before and after the translation, to have one standardized method of encoding of

input words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

With respect to independent **claim 10**, Tolin teaches a method for managing

content comprising:

- transforming the object in the first language space to the
   object in a language agnostic space *(Figs. 1, 3, and 4; col. 5-6, file is*
   translated from original language to artificial language); and

- manipulating the object in the language agnostic space *(col. 6,*
   11-14; the data are simplified by changing to a vocabulary of fewer words by stripping
   morphology).

but although Tolin teaches that the artificial language of the intermediate step may be numeric

(col. 3, lines 5-11) and that numbers may be attached to "words" for informational purposes *(col.*

9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57), Tolin does not teach the

step of:

- `converting an object in a first language space into a`
  `numeric representation of the object in the first language`
  `space.`

However, the examiner contends that this concept was well known in the art, as taught by Unger.

In a related field of endeavor, Unger teaches the conversion of textual information to a

numerical form *(col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27)*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the language translation method of Tolin with the text conversion

steps of Unger before the translation, to have one standardized method of encoding of input

words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

With respect to **claim 11**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 10); furthermore, Tolin teaches `the method of claim 10, further`

`comprising:`

- `transforming the manipulated object in the language agnostic`
  `space to a numeric representation of the manipulated object`

in the first language space *(Fig. 2, col. 19, lines 36-49; each language has*

both a source module as well as a target module) .

Each target module can be used with any source module, as they are all are accepted by the

intermediate module. Therefore, data may be transformed back to the original language after

passing through the intermediate step.

With respect to **claim 12**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 10); furthermore, Tolin teaches the method of claim 10, further

comprising:

- transforming the manipulated object in the language agnostic

  space to a numeric representation of the manipulated object

  in a second language space *(Figs. 1, 3, and 4; columns 6-7, file is translated*

  from artificial language to the target language) .

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

        * Yokogawa; Toshihiko (US 5225981 A) - language analyzer for morphemically

and syntactically analyzing natural languages by using block analysis and composite

morphemes.

        * Yamauchi; Satoshi et al. (US 5845143 A) - language conversion system and

text creating system using such.

* Martinez-Guerra; Juan Carlos et al. (US 6523172 B1) - parser translator system and method.

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIALONG HE whose telephone number is (571) 270-5359. The examiner can normally be reached on Monday-Thursday, 7:00AM-4:30PM, ALT. Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JH/

/Patrick N. Edouard/

Supervisory Patent Examiner, Art Unit 2626